Articles

Complementary Medicine

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The widespread use of complementary and alternative medicine techniques, often explored by patients without discussion with their primary care physician, is seen as a request from patients for care as well as cure. In this article, we discuss the reasons for the growth of and interest in complementary and alternative medicine in an era of rapidly advancing medical technology. There is, for instance, evidence of the efficacy of supportive techniques such as group psychotherapy in improving adjustment and increasing survival time of cancer patients. We describe current and developing complementary medicine programs as well as opportunities for integration of some complementary techniques into standard medical care.

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Not long ago, for a doctor to be described as being interested in complementary medicine was *not* complementary. Although that may still be the case, interest in complementary (alternative) medicine is growing—at the same time, strikingly, that the science and technology of medicine have advanced remarkably. Traditional "Western" medicine has given us cures for many bacterial infections, life-extending treatments for viral infections such as HIV, and symptom-reducing interventions for heart disease, and it has converted many kinds of cancer from terminal to chronic. Large numbers of Americans, however, still turn to unproven treatments and health traditions outside of mainstream medicine.

Here at the end of the twentieth century, the old adage, to "cure rarely, relieve suffering often, and comfort always," has been rewritten: the doctor's job has become to "cure always, relieve suffering if one has the time, and leave the comforting to someone else." In some ways, Western medicine's success is also its weakness. The acute disease model, which emphasizes diagnosis, definitive treatment, and cure, works in many situations, but the leading killers of Americans—heart disease, stroke, and cancer—are by and large chronic and progressive rather than acute and curable. The application of a curative model when disease management is all that can be given leaves doctors and patients dissatisfied. Thus patients turn elsewhere for relief and comfort, and complementary medicine is one such place.

Complementary or alternative medicine includes treatments based on the connection between body and mind, so-called "holistic" medicine, such as self-help groups, stress management, meditation, and yoga, as well as fields such as chiropractic, homeopathy, acupuncture, biofeedback, herbal treatment, and massage. The two terms are not, of course, synonymous: the more common term, "alternative," connotes the use of such medicine *instead* of Western medicine; the term "complementary" has been growing in prominence to emphasize that such treatments can be used in addition to, and to balance the shortcomings of, mainstream medicine. (The term *complementary* must be used with care so that it is not confused with *complimentary*, or free.)

The modern model of medical intervention may pay lip service to the integration of mind and body, but in fact, in Western medicine we are closet Cartesians. We emphasize somatic intervention with curative intent, and talking with, comforting, guiding, and educating patients is of lesser importance—something to do until the injection is ready. An illness can be a lonely journey and patients crave contact with people who understand what the journey is like and who can stay with them during its course. Thus the appetite for complementary medicine is stimulated by a need for attention and compassion that many patients are not getting in modern biotechnological medical care. The problem is intensified by the business managers of modern American medicine, who pump even more time and energy out of the interaction between doctor and patient, saddling doctors with more patients per hour and less clinical autonomy and expecting them to be assembly-line workers instead of the professionals they are. Managed care as it is practiced today further desiccates the doctor-patient relationship and limits the opportunities for medical compassion to enhance medical care.

Americans are voting with their wallets for complementary treatment. Eisenberg's widely cited study¹ documented the widespread use of complementary services. While the study has been criticized on the grounds that the most-used forms of complementary care involved exercise and fitness (which has medical implications but is not truly an alternative to medical care), it nonetheless documented that in 1990, Americans spent 13.8 billion dollars, the bulk of it out-of-pocket, for complementary care—more than for hospitalization. Even more telling, three-quarters of those who used these services did not tell their primary care physicians, suggesting that in the patient's mind the interventions were indeed alternative rather than complementary. One in three Americans used some type of alternative health care services, and two out of three Californians spent more out-of-pocket money on complementary medicine than on primary medical care.1

Support Groups for Cancer Patients

My own interest in this domain began some two decades ago when Professor Irvin Yalom of Stanford University invited me to join him in setting up support groups for women with metastatic breast cancer. Yalom has written a standard textbook on group psychotherapy, The Theory and Practice of Group Psychotherapy, and also the standard text on existential psychotherapy. He was preparing Existential Psychotherapy when he undertook to learn more about and help women living with a life-threatening disease. He thought that if there was truth to the ancient idea that one only lives authentically when facing the contingency of one's existence, perhaps people facing the end of their life could grow, redefine their lives, and discover what was important to them.

I jumped at the chance to be a part of the project. In the groups, which met for an hour and a half once a week, we discussed mortality, grieved losses, reordered priorities, worked on relationships, and taught simple self-hypnosis exercises to help control anxiety and pain.

We and the oncologists who referred their patients to us were concerned that the support groups might make the women worse rather than better. After all, what could be more demoralizing to a woman with metastatic breast cancer than seeing another woman, whom she had come to know and care about, die of the same disease? As we encouraged the women to talk—about their fears, their middle-of-the-night dread, their reactions to bad news about their disease, their family problems, the limitations imposed upon them by the illness-something interesting and important emerged. Even as the women were saddened and frightened by the dying and death of group members, they were also somehow strengthened by it. Even in the depth of grief for others who had died, the group members perceived in a new way how they too would be mourned when they died. Many felt fortunate that, though dealt a similar hand, they had lived longer than other members of the group. Many better understood their family's reactions to their impending death. They recognized how short their time might be and reordered their priorities in life, to deepen relationships that mattered, eliminate ones that didn't, finish writing a book, and spend time with their child. They came to deeply value the life of the group itself. They became experts in living, as they had something of value to pass on to others who were coping with the same disease. Genuine good came out of the tragedy of having breast cancer.

Outcomes: Psychosocial and Medical

The initial study was a randomized trial. We found that the 50 women who attended weekly support groups were significantly less anxious and depressed, despite the fact that a third of them died during the initial year of the study.^{4,5} In addition, by the end of the year they had reported only half of the pain reported on a questionnaire by 36 control patients on similar analgesic and psychotropic medications.

The biggest surprise, however, came almost a decade later. I was irritated by the excessive claims of those who preached a "wish away your illness" approach to cancer—the idea that visualizing white cells killing cancer cells would somewhere result in such an effect on the body⁶—and it occurred to me that we had the makings of an interesting experiment. We knew that the support groups had helped these breast cancer patients emotionally, but what effect did they have on the course of the disease? We obtained death certificates for 83 of the 86 women (the other three were still living). Eighty-one had died of causes related to breast cancer. Much to our surprise, we found a significant survival advantage among the women who had taken part in the group therapy sessions. They lived an average of 18 months longer than control patients, and by 48 months after completion of the study, when all of the control patients had died, onethird of the treatment patients were still alive.⁷

Since this study, two other randomized trials have shown the positive effect of psychosocial intervention on survival time. Richardson and colleagues⁸ randomly assigned 100 lymphoma and leukemia patients to either routine care alone or routine care plus intensive home visiting interventions. The at-home intervention improved adherence to medical treatment, but independent of that, patients who received the psychosocial intervention lived longer than control patients. More recently, Fawzy and colleagues⁹⁻¹¹ followed 80 malignant melanoma patients randomly assigned to either six weeks in intensive group therapy or routine care. The group therapy patients had significantly lower rates of relapse and mortality at the sixyear follow-up. They also had higher α-interferon-augmented natural killer cell cytotoxic activity (NKCA). The differences in NKCA were not associated with relapse or survival differences, but baseline NK cytotoxic activity was higher in patients who did not relapse.

Three other trials, two randomized, clearly show no effect of psychosocial intervention on survival time.

Illnikyj and colleagues¹² studied a melange of support groups, both self-help and with a leader, for breast cancer patients. They found no psychological or physical benefits for the patients in these groups. Linn and colleagues¹³ used an intensive, well-structured individual psychotherapy intervention for lung and gastrointestinal cancer patients. The intervention was associated with psychological benefits but did not affect mortality rate. (The failure to show a survival benefit may have been related to the rapid downhill course of the disease; most of the patients died within a year.) Siegel and colleagues published a matching trial¹⁴ involving patients who went through his Exceptional Cancer Patient Program, designed to help people root out psychological "causes" of their cancer, compared with patients using routine care. There was no difference in survival.

At this point, three of the five randomized trials provide evidence for a survival advantage for cancer patients given psychotherapeutic support. Our laboratory is currently in year 8 of a 10-year replication trial funded by the National Institute of Mental Health and the National Cancer Institute in which 125 women with metastatic breast cancer have been randomly assigned to receive either educational materials about breast cancer in addition to routine care or educational materials, routine care, and supportive-expressive group therapy. By the end of the century, the study should have a definitive answer to the question of whether the group therapy affects survival time. In the meantime, we are actively examining coping variables and adjustment.¹⁵ Data indicate that patients who attempt to suppress their emotional response to the disease are actually more distressed than those who deal more openly with their feelings. In addition, we are examining possible endocrine and immune parameters that could mediate psychosocial effects on the rate of disease progression. Candidate measures include salivatory cortisol levels, lymphocyte counts, natural killer cell cytotoxicity, and delayed type hypersensitivity. We plan to examine the extent to which these variables may be associated with the rate of disease progression and participation in group psychotherapy.

Thus evidence from our laboratory and those of others indicates that psychosocial intervention techniques are helpful to cancer patients emotionally, and perhaps medically as well. 16-18 Attention to the coping and caring components of medical illness, in conjunction with standard medical treatment, is emotionally helpful and might actually affect the course of the disease. From this perspective, the extension of standard medical intervention to include techniques that help patients better cope with their illness, support one another, alter life priorities, manage distress better, and control symptoms such as anxiety and pain might be added gradually and accepted as part of the modern medical treatment regimen.

Complementary Medicine Programs

At least 27 medical centers, in addition to Stanford, have complementary medicine programs, some of which

emphasize a single technique such as mindfulness meditation, 19 relaxation response, 20 homeopathy (at the University of Maryland), or information (at Columbia University). The general mind-body focus of programs is similar, some involving techniques such as hypnosis, mindfulness meditation, and yoga, and some involving psychosomatic techniques such as biofeedback, group support (which is rapidly increasing in popularity), nutritional counseling, massage, and acupuncture.

Program Models

Several types of complementary/alternative medicine (CAM) programs are being developed by health systems and medical centers throughout the country. These include "integrated" clinics that provide both Western and complementary services in a single setting or series of settings. Mind-body programs are common in hospitals, many based on the techniques or philosophy of an individual such as Jon Kabat-Zinn of the University of Massachusetts, Herbert Benson of Harvard Medical School, and Andrew Weil of the University of Arizona. Other programs provide a range of complementary services independent of a physician practice, with multiple therapies such as massage, chiropractic, herbs, mindfulness, qigong, and t'ai chi.

Integrative Medicine Clinic

The integrated clinic may be the most effective of the program models. Its philosophically consistent means of delivering complementary medicine ensures open communication and integration of Western and complementary techniques. Physicians, usually in primary care, incorporate complementary practices and practicians into a single setting or related settings. The economics of this approach builds a multidisciplinary CAM practice from a base of primary care allopathic medicine, and control of overhead expenses is critical in determining feasibility. Following are several notable examples:

The King County Natural Medicine Clinic in Kent, Washington, is a county-sponsored community clinic integrated into the six community clinics of the local public health systems. After Washington State's "every willing provider" law was enacted, the clinic was begun at a start-up cost of \$750,000 and a budget of \$1.2 million for its first two years of operations. Bastyr University, the only accredited multidisciplinary institution of natural medicine in the country, received the contract to organize and staff the clinic, whose services include acupuncture, Chinese herbs, and naturopathy. The county has developed protocols that specify which diagnoses be referred for conventional medical care, including stroke, acute hypertension, bone fractures, prenatal care, and newborn and infant care through two months. The county protocols suggest that patients consider naturopathic consultations for ear infections, food allergies, migraines, asthma, premenstrual syndrome, enlarged prostate, and ulcers. The State of Arizona Department of Health has recently arranged for the

King County team to make a presentation as part of its assessment of developing an integrated public health clinic in Arizona.

American Holistic Centers is a private, for-profit company co-founded by Dr. David Edelberg. It operates five centers, three in Chicago, one in Denver, and one in Boston, and has planned centers in Seattle and Boulder. Each center has on staff a board-certified internist or general practitioner who practices medicine and supervises a broad range of independent contractors as alternative therapists and practitioners. Most of the centers have approximately 35 independent CAM practitioners who maintain practices elsewhere, including at a minimum, a chiropractor, a practitioner of traditional Chinese medicine, a mind-body psychologist, a nutritionist, a massage therapist, a homeopath, and a naturopath who is board certified in internal medicine and geriatrics. AHC provides quality assurance, outcomes, and other templates for development of their partner facilities/integrated practices. The company is contemplating going to the public markets for equity in the next two to three years and has recently received \$5 million from venture capital partners Essex/Woodlands Health Ventures and The Sprout Group, the venture arm of Donaldson, Lufkin Jenrette. Experience at its most mature sites has shown that 13% of revenues are derived from products (herbs, tapes, vitamins). Modalities that have experienced the highest demand are primary care physicians, followed by chiropractic, acupuncture, Alexander and Feldenkreis bodywork, and wellness counselors (RNs and MSWs). Other practitioners, such as Ayurvedic, have not been in demand or well accepted to date.

UCLA's Center for East-West Medicine provides an integrated clinic with physicians trained in traditional Chinese medicine as well as practitioners of acupuncture, clinical pharmacology, and geriatrics who work together to perform patient assessments and integrated treatment plans. Patients are initially assessed by a physician with Eastern and Western training. Services include acupuncture, acupressure, dietary and herbal supplements, t'ai chi, and qigong, and programs include a clinic, research and education including continuing education, and training of medical students and residents.

Spense Centers for Women's Health, a chain of women's health centers based in Maryland, offers a range of alternative modalities integrated in a spa-like women's health medical practice. In addition to traditional health services such as gynecology, dermatology, internal medicine, and endocrinology, the centers offer podiatry, laser surgery, massage, acupuncture and herbs, nutrition counseling, and classes such as yoga, exercise and movement therapy, music therapy, and chiropractic. (Chiropractic has been one of the least successful of the centers' programs.) The program has expanded to develop affiliated clinics in joint ventures with Johns Hopkins University in Baltimore and Brigham and Women's Hospital in Boston.

Hospital-Based Programs

Hospital-sponsored programs vary in scope and size from single-philosophy programs in mind/body therapies, spirituality, healing touch, and acupuncture to multidisciplinary clinical, educational, or referral-based programs. Following are several illustrations:

California Pacific Medical Center's Institute for Health and Healing in San Francisco is one of the largest multidisciplinary programs we found. The program provides information, education, research, and clinical care promoting wellness. The program combines ancient health practices with modern mind/body research. Programs, which are housed in the chaplaincy service division on the California Pacific Medical Center Foundation, are open to the public and to all patients and health professionals. The program encompasses a wide range of services including a health library, mindfulness-based stress reduction, yoga, arts/movement therapy, a spirituality course, and support groups.

Sisters of Charity of Nazareth Health System in Kentucky has trained 40 nurses and pastoral care counselors in the use of healing touch as an adjunct pain management technique and is planning an Institute of Mind-Body-Spirit for its six hospitals in Kentucky, Arkansas, and Tennessee. The Institute will train and certify practitioners in reiki, herbs, reflexology, and other alternative medicine healing methods.

In Canada, the Tzu Chi Institute for Complementary and Alternative Medicine at Vancouver Hospital and Health Sciences Center is being established with contributions from the hospital, the Canadian Cancer Society, the British Columbia government, and a \$6 million grant from the Taiwan-based Tzu Chi Foundation, a Buddhist organization. The institute will include clinical services as well a strong research component.

Griffith Hospital in Connecticut is a relatively new hospital designed and operated under the "Planetree" concept that has fully integrated complementary therapies into its nursing, clinical, and education programs. It also is an owner of an HMO that pays for complementary therapies, including naturopathy and homeopathy. The hospital has not had broad-based community demand for many of the alternative therapies that are offered, with the exception of chiropractic. Most users have been upper-income, educated consumers. The hospital and HMO are focusing program development and marketing on patients with chronic conditions who have not responded well to allopathic treatments.

Franchise Programs

Several well-known physicians have developed CAM programs based on specific research, techniques, philosophies, and modalities that have been expanded to multiple sites. The following are notable examples of these franchise programs.

The Mind/Body Medical Institute of Deaconess Hospital and Harvard Medical School was founded in 1988 by Dr. Herbert Benson. The program, which is extended to other sites, uses meditation, mental imagery, repetitive exercise, breathing techniques, and prayer to reduce blood pressure, ease chronic pain, and treat infertility, insomnia, and PMS.

Dean Ornish's Heart Disease Reversal Program has been developed for expansion to multiple sites. It is now operating in at least six medical centers nationally, including Mt. Diablo Hospital in Concord, California, and Beth Israel Hospital in Boston. It has received reimbursement authorization from 20 insurers. Discussions are underway at UCSF to incorporate this program into their complementary medicine clinic. The program includes nutritional and lifestyle counseling, course work, and other allopathic, CAM, and lifestyle modification techniques.

More than 15 years ago, Jon Kabat-Zinn developed a widely used program in mindfulness meditation and stress reduction. It is reported that more than 400 medical centers now employ it nationally. The University of Massachusetts Medical Center developed a Center for Mindfulness in conjunction with Kabat-Zinn. The program involves groups built around various diagnoses, including cardiac rehabilitation, high blood pressure, cancer, anxiety disorders, chronic pain, orthopedics, and general development of life skills and stress reduction. It emphasizes a "one size fits all" approach of teaching a similar mindfulness meditation approach regardless of the problem bringing the patient to the center.

Independent and Affiliated Institutes

Several independent CAM centers have been founded by faculty of various medical schools. They include the Center for Mind-Body Medicine, a non-profit institute founded by James S. Gordon, a clinical professor in the departments of Psychiatry and Community and Family Medicine at Georgetown University, and Andrew Weil's Program in Integrative Medicine at the University of Arizona in Tucson. Weil's is a non-profit institute affiliated with the university that opened in 1997 as a training program with carefully selected MD fellows. It includes four residency training slots and an integrated clinic.

Local/Regional Programs

CAM providers and programs are probably more prevalent in California than in any other region of the country. The Eisenberg study found a 25% higher use rate among West Coast respondents.1 Prudential found ten times more use of acupuncture in California than in other parts of the country.24

Hospital-Based Programs

Both Sequoia Hospital in San Mateo County and El Camino Hospital in Santa Clara County sponsor Mindfulness-Based Stress Reduction courses modeled after the program developed at the University of Massachusetts by Kabat-Zinn.

In August 1996, the University of California at San Francisco launched a UCSF/Mt. Zion Integrative Medicine Program Planning Task Force at the request of the dean of the School of Medicine. The task force has been developing plans for a clinical and teaching program, including herbals, psychosocial programs for cancer, cardiac prevention, habit abatement, art for recovery, music, and medical student and continuing medical education for physicians.

Kaiser-Permanente has an alternative medicine clinic at its Vallejo, California, clinic that sees about 400 patients a month for acupuncture. Other services include acupressure, nutritional counseling, and self-help programs, and services in biofeedback, hypnosis, and some Chinese herbs are planned. Four physicians practice in the CAM clinic that receives Kaiser patients from throughout the country. Kaiser also offers a mindfulness meditation program through most of its local clinics.

We conducted a survey of complementary techniques available at Stanford and discovered that many are available on campus and used by our patients and staff (Table 1). They include hypnosis, biofeedback, meditation, selfhelp and support groups, acupuncture, massage, and nutrition and exercise programs. We have reorganized and extended these programs into a formal Complementary Medicine Clinic including triage, to assess patients medically and ensure that the medical intervention they receive is appropriate and well matched to their needs. In conjunction with our current clinical programs, such as the pain clinic, the lymphedema clinic, gastroenterology, radiation oncology, oncology, and psychiatry, we plan to extend research interests of the faculty to include implementing and evaluating such programs as support groups for cancer patients; support and educational groups for heart disease patients, including type A management; training for arthritis patients; acupuncture and biofeedback for chronic pain; massage for lymphedema, chronic pain, and muscle weakness syndromes; nutritional counseling for a variety of illnesses; meditation; acupuncture; and yoga. The program is rigorously supervised and evaluated.

The Complementary Medicine Clinic at Stanford opened in April 1998. It includes the following programs: group therapy for cancer, heart disease, and other serious illnesses; hypnosis; biofeedback; acupuncture; massage; meditation; and yoga. We are using the services of Medical School faculty and staff and are instituting programs that have already been developed, for which there is proven evidence of efficacy and faculty interest and skill. We have included systematic evaluation of outcome and will conduct further studies of the efficacy of specific parts of the program. We have physicians and a nurse specialist to conduct patient evaluations under medical supervision and help patients design a program of support. We plan to investigate the efficacy of an interactive program of complementary services that combines several approaches in the treatment of problems such as chronic pain and procedure anxiety.

| Туре | Program | Sponsor |
|-----------------------|--|---------------------|
| Relaxation techniques | | University-HIP |
| | Meditation | Chaplain |
| | Stress research | SCRPD |
| Massage therapy | Scheduled inpatients | Community Relation |
| | Center for Musculoskeletal Disease at Stanford | |
| Lifestyle diets | | SCRPD |
| | Nutrition Action Program | SCRPD |
| Self-help groups | Arthritis self-management | SCRPD |
| | Preventive Cardiology Clinic | SHS Social Services |
| | Multiple support groups | Psychiatry |
| Department | | |
| Megavitamin therapy | | SCRPD |
| Biofeedback | Pain Clinic | SHS, Faculty |
| Hypnosis | Individual consultations | Faculty |
| Acupuncture | Individual consultations | Faculty |
| | Pain Clinic | |
| | Center for Musculoskeletal Disease at Stanford | |
| Exercise | | SCRPD, HIP, SHS |
| Prayer | Individual and group | Chaplaincy |

Our planning for this program has revealed a growing number of insurers who are willing to pay for certain alternative treatments.²¹ A number of insurers seek to differentiate themselves from the marketplace by explicitly offering supplemental or comprehensive benefit programs that cover complementary medical care.

Many payers already provide at least limited coverage for more traditional techniques such as hypnosis, biofeedback, and group psychotherapy, while others provide riders for coverage for complementary care. It has not been shown that access to these complementary programs reduces overall health care costs, as many have claimed. Indeed, one program in Washington found an increase in costs due to unrestricted access and higher-than-forecast use. One fundamental problem in the managed care system of health care is the insurers' fear of adverse selection, that excellence in providing care for specific medical illness will attract patients with that illness to that plan. It is possible that the patients (and therefore the plans and providers that care for them) with the most intransigent conditions could benefit the most from complementary symptom management and coping techniques. It is clear from the Eisenberg study and others that the kinds of patients who heavily involve themselves with complementary treatments are often burdensome to the traditional medical care system; for example, those with chronic pain.^{22,23} Since many complementary techniques and providers are less costly than medical or pharmaceutical interventions, such services may fit well into true disease and utilization management systems.

For an institution such as Stanford, such a program offers multiple advantages:

- The opportunity to extend research into the efficacy mechanisms and cost-effectiveness of novel or unconventional interventions.
- The opportunity to provide better overall management of patients with chronic and serious medical illness.
- 3. The opportunity to focus the attention of the health care system on the coping aspects of illness.
- 4. The opportunity to pay attention to coping and caring as well as cure.

The development of such programs is fraught with difficulty. It is critical to elicit cooperation and support from medical staff and administration. The decision was made at Stanford, for example, not to include chiropractic in the program after consultation with a variety of medical specialists. Our focus group research with patients, staff, and members of the community led us to anticipate that the program will be a welcome addition to the array of services provided by our tertiary care medical center. Many focus group participants indicated that offering it at Stanford Medical Center implies that services would be covered by their health insurance, which, as noted above, is not uniformly the case. Many also thought that "complementary" meant "free." Nonetheless, patients told us that they pay out-of-pocket for those services elsewhere and would welcome the opportunity to receive them at Stanford, particularly because of the assurance that they would receive the

highest quality care and there would be the opportunity for greater coordination, awareness, and support from their allopathic physicians.

A number of complementary and alternative providers have licensing and/or certification programs. Appropriate certification and supervision remains an important and not entirely resolved issue, particularly with respect to medical staff privileges and liability concerns of a hospital.

Conclusion

The reorganization and increased availability of coping and support services under the rubric of complementary medicine seems to be a useful means of addressing patient demand and limitations in current, acute, highly technological curative medicine, particularly if approached with the same scientific skepticism that we use with the development of all other aspects of medicine. Such programs may indeed complement and enhance our overall medical care, leading toward the day when the best of what is currently called complementary medicine will be called just plain good medicine.

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